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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,023	12/13/2001	Jean-Claude Junqua	9432-000149	2795

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EXAMINER
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KNEPPER, DAVID D

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/022,023

Applicant(s)

JUNQUA ET AL.

Examiner

David D. Knepper

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 28 Oct 2002, 17 Dec 2004 & 26 Jan 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3 sheets.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

1. Applicant's correspondence filed on 28 Oct 2002, 17 Dec 2004, and 26 Jan 2005 has been received and considered. Claims 1-17 are pending.

### **Priority Claims**

2. The applicant(s) should check their filing receipts and/or the Patent Application Information Retrieval (PAIR) system for the acknowledgment of their **domestic** priority or benefit claims (if any) under 35 USC 119(e), 120 or 121 (37 CFR 1.78).

### **Claims**

3. Claims 15-16 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear what the applicant is attempting to claim in claims 15-16. The database in figure 1 is disclosed as representing a variety of elements. The specification on page 5 indicates that the databases may contain information suitable for use with speech recognition combined with phoneme data but also indicates that some database information need not be directly suitable for use with speech recognition and would require some indirect method of establishing a suitable relationship. The claim language "suitable for use with a speech recognition system" fails to establish any relationship with the claimed database. The other claims are directed towards "constraint-based speech recognition" which does not seem to jibe with the terminology used in claims 15-16 which imply generic data processing. What type of data is being processed and how is it related to the database? Clarification of the applicant's intention may require a

restriction if the applicant is performing database management or some generic form of data processing for database creation. Is the applicant trying to describe a manual device for encoding a database? Is the applicant trying to describe one database converted into another format? Why is the claim worded to address the database per se? Could it be worded toward steps that may be performed to create a database containing input followed by functional steps and output?

Claim 15 is towards “an information database” but claim 16 further defines “the manually operated device” thus failing to further limit the database or any particular functional relationship with the database.

To further prosecution these claims will be interpreted in view of claim 17 and the specification as allowing a keypad entry of input data to narrow the access to a database of information that will be used for speech recognition.

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 15 and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

These claims appear to be directed to nonfunctional descriptive material in the form of a database. The elements of the database are not described in such a way as to provide functional interrelationships and is therefore nothing but a mere compilation of data.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 15-17 are rejected under 35 U.S.C. 102(b) as being anticipate by Roth (5,131,045).

A method for constraint for use with a speech recognition system which includes a database is taught by his figures 1 and 2:

“Non-speech input” is taught by his keyed entry 30, figure 1;

“accessing an information database” is taught by his templates storage 21, figure 1; and

“generating candidate information based on the non-speech input” is taught by his templates that are culled 31, figure 1.

The above steps are in claim 17. The “database” of claim 15 could be the template storage and/or the described entry points into a template store in col. 7 lines 36-45. If claim 16 would be written as requiring certain steps including keyed entry on certain number-letter combinations than this interpretation would read upon what Roth teaches from a standard DTMF keypad. Roth provides functional relationships that allow speech recognition in combination with access to particular data that can be accessed and limited based upon input using keys of a keypad.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-14 are rejected under 35 U.S.C. § 103 as being unpatentable over Barclay (5,690,399) in view of Medan (5,530,950) and Roth (5,131,045).

As per claims 1, 8 “Constraint-based speech recognition system for use with a form-filling application” is taught or suggested by Barclay’s form-filling applications, col. 9, lines 2-30:

“speech input” (his speech processor/recognizer, title);

“non-speech input of a type generated by a user via a manually operated device” (suggested by his graphical user interface (GUI), col. 9 above and col. 8, lines 48-64 which includes various manually selectable buttons to identify form fields – see Medan who teaches that it is a known alternative to utilize touch tone DTMF keys, col. 2, lines 25-60 as delimiters to identify fields in a form to be filled in – see also Roth col. 7, lines 36-46 who explicitly teaches letter combinations derived from the received DTMF digits are used as entry points into a template store to reduce the number of templates required for matching for speech recognition);

“access an information database containing information suitable for use with speech recognition” (Barclay’s generating a data structure, col. 3, line 27 which forms the data to be stored as a form 260, figure 5 is inherently a database, as would be Medan’s storage 60, fig. 2

which stores the files of fig. 4 and Roth's database access and data-gathering, col. 6, lines 23-24);

“generate candidate information based on the non-speech input and the information database, the candidate information corresponding to a portion of the information” (Barclay generates information relevant to fill out and file forms, col. 4, lines 25-29; and Medan generates information to fill in all the fields of the form); and

“recognize speech based on the speech input and the candidate information” (as noted above, both Barclay and Medan show that it is known to use speech recognition to fill in particular information required for various forms and Roth teaches that it is well known to combine spoken and keyed data entry when a limited keyboard (such as a telephone keypad) is used to improve recognition).

It is noted that Barclay does not explicitly teach a particular type of “non-speech input”. However, he teaches that non-speech input is known in combination with speech recognition. Medan specifically teaches that DTMF input is known in combination with speech input and Roth teaches that the combination of DTMF and speech recognition is a particularly useful manner of alternative input for computers in order to improve the success rate of speech recognition. It would have been obvious for a person having ordinary skill in the pertinent art, at the time the invention was made, to combine Barclay and Medan because they are both performing similar combinations of speech recognition to fill out forms across networks and the additional combination of Roth is obvious because of the advantageous combination of DTMF to improve speech recognition noted above as he teaches in col. 2, lines 15-30 for use in a telephone network.

Claims 2, 5, 9, 12: Information encoded according to a “plurality of classes” is taught by the keyed entry, fig. 2 of Roth. The applicant’s definition of classes in the specification is based on the key press combinations that can select a list of possible word candidates and this is equivalent to Roth’s selection of templates which represent words to be matched.

Claim 3, 10: Form-filling applications are taught as noted above under claim 1.

Claims 4, 6, 11, 13: Using “touch-tone telephone” and “key of a keypad” is taught by the telephone DTMF keypads used for input as noted under claim 1 above.

Claims 7, 14: “Name” and “address” information is common in forms of many types (see Medan, figure 4). Official notice is taken that “Zip codes” are a common part of address information. Encoding based on “combinations of letters based on the key classes” is explained under claims 2, 5 above.

10. Some correspondence may be submitted electronically. See the Office's Internet Web site <http://www.uspto.gov> for additional information.

Please address mail to be delivered by the United States Postal Service (USPS) as follows:

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Knepper whose telephone number is (571) 272-7607. The examiner can normally be reached on Monday-Thursday from 07:30 a.m.-6:00 p.m.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil, can be reached on (571) 272-7602.

For the Group 2600 receptionist or customer service call (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by email at [ebc@uspto.gov](mailto:ebc@uspto.gov). For general information about the PAIR system, see <http://pair-direct.uspto.gov>.



David D. Knepper  
Primary Examiner  
**Art Unit 2654**